PTO/SB/21 (08-03) Approved for use through 07/31/2006. OMB 0651-0031 U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number. **Application Number** 10/709,010 Filing Date April 7, 2004 **TRANSMITTAL First Named Inventor** Matthew J. Murray **FORM Group Art Unit** (to be used for all correspondence after initial filing) **Examiner Name Attorney Docket Number** U03-0134.65 Total Number of Pages in This Submission **ENCLOSURES** (check all that apply) Fee Transmittal Form Drawing(s) After Allowance Communication to Group Fee Attached **Licensing-related Papers** Appeal Communication to Board Petition of Appeals and Interferences Amendment / Reply Petition to Convert to a Appeal Communication to Group After Final **Provisional Application** (Appeal Notice, Brief, Reply Brief) Power of Attorney, Revocation Affidavits/declaration(s) **Proprietary Information** Change of Correspondence **Extension of Time Request Status Letter** Address **Express Abandonment Request** Other Enclosure(s) (please Terminal Disclaimer Information Disclosure Statement identify below): Request for Refund \*Acknowledgement Postcard **Certified Copy of Priority** CD, Number of CD(s) \_\_ \*11 Non-Patent References **Documents** Response to Missing Parts/ Incomplete Application Remarks Response to Missing Parts under 37 CFR 1.52 or 1.53 SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT Firm MATTHEW W. WITSIL (REG NO. 47,183) Individual Name **MOORE & VAN ALLEN** Signature **APRIL 8, 2004** Date **CERTIFICATE OF TRANSMISSION/MAILING** I hereby certify that this correspondence is being facsimile transmitted to the USPTO or deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on the date shown below. Typed or printed name Katie M. Efland April 8, 2004 Signature Date

This collection of information is required by 37 CFR 1.5. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.





## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: Matthew J. Murray

Group Art Unit: Not Assigned

Serial Number: 10/709,010

Examiner: Not Assigned

Filed: April 7, 2004

For: Transducer Assembly and Loudspeaker Including Rheological Material

Commissioner for Patents PO Box 1450 Alexandria, VA 22313-1450

## INFORMATION DISCLOSURE STATEMENT UNDER 37 C.F.R. § 1.56 AND 37 C.F.R. § 1.97

It is respectfully requested that the document listed on the attached Form PTO/SB/08A be considered by the Patent and Trademark Office in the above-referenced application and made of record therein. A full text copy of the non-patent literature documents are enclosed. This information disclosure statement submitted herewith is being filed within three months of the filing date of the application or date of entry into the national stage of an international application or before the mailing date of a first Office action on the merits, whichever event occurs last. Respectfully submitted,

Matthew W. Witsil

Registration No. 47,183

Attorney for Applicant Moore & Van Allen, PLLC

2200 West Main Street, Suite 800

Durham, NC 27705

Phone:

919-286-8000

Facsimile: 919-286-8199

April 8, 2004

Date

## **CERTIFICATE OF MAILING**

I hereby certify that this correspondence is being deposited with the US Postal Service as first class mail on April 7, 2004, in an envelope addressed to Commissioner of Patents, PO Box 1450, Alexandria, VA 22313-1450

Katie M. Efland

APR 1 2 2004

Sheet

ner

ure

**Signat** 

PTO/SB/08a (08-03)
Approved for use through 07/31/2006. OMB 0651-0031
U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

for form 1449A/PTO	Complete if Known		
NEADMATION DIOOLOGUDE	Application Number	10/709,010	
NFORMATION DISCLOSURE	Filing Date	April 7, 2004	
STATEMENT BY APPLICANT	First Named Inventor	Matthew J. Murray	
	Art Unit		
(use as many sheets as necessary)	Examiner Name		
1 of	Attorney Docket Number	U03-0134.65	

			U.S. F	PATENT DO	CUMENTS		
Examiner Initials'	Cite No. <sup>1</sup>	Document Number  Number-Kind Code <sup>2</sup> (if known)		tion Date D-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevan Figures Appear	
	Α	US- 6,332,029	12/18	3/2001	Azima et al.		
	В	US- 6,192,136	02/20	)/2001	Azima et al.	<b>//</b>	
	С	US- 6,522,760	02/18	3/2003	Azima et al.		
	D	US- 6,151,402	11/21	1/2000	Azima et al.	<del> </del>	
	E	US- 6,389,935	05/21	1/2002	Azima et al.		
	F	US- 6,606,390	08/12	2/2003	Azima	*	
	G	US- 2003/0059080 A1	03/27	7/2003	Backman		
	Н	US- 6,434,237	08/13	3/2002	Murray		
	1	US- 2003/0059069 A1	03/27	7/2003	Bank et al.	· · · · · · · · · · · · · · · · · · ·	<u> </u>
	J	US- 2002/0064290 A1	05/30	)/2002	Reynaga et al.	,	-
	K	US- 2002/0193137 A1	12/18	9/2002	Bank et al.		_
	L	US-6,353,733 B1	03/05	5/2002	Murray et al.		
· •	М	US-6,266,542 B1	07/24	1/2001	Stern et al.		
		US-					
		US-					
-		US-				,	
		US-					
			FORFIG	N PATENT I	DOCUMENTS		·
	FOREIGN PATENT DOCUMENTS  Foreign Patent Document  Pages, Co		Pages, Columns, Lines,	1			
Examiner Cite		Country Code <sup>3</sup> –Number <sup>4</sup> –Kind Cod	Publi		Į.	Where Relevant Passages	Τ'
	<u> </u>				<u> </u>		
Exami					Date		

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. 1 Applicant's unique citation designation number (optional). 2 See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. 3 Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). 4 For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. 5 Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. 6 Applicant is to place a check mark here if English language Translation is attached.

Considered

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

PTO/SB/08b (08-03)

Approved for use through 06/30/2006. OMB 0651-0031

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the aperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Complete if Known Substitute for form 1449B/PTO 10/709,010 **Application Number** Filing Date April 7, 2004 **INFORMATION DISCLOSURE** Matthew J. Murray First Named Inventor STATEMENT BY APPLICANT **Art Unit Examiner Name** (use as many sheets as necessary) **Attorney Docket Number** U03-0134.65 Sheet 2 of

APR 1 2 2004

NON PATENT LITERATURE DOCUMENTS				
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T²	
	N	www.maxim-ic.com/appnotes.cfm/appnote.number/988/ln/en (visited 11/4/03); Maxim Website, Driving Audio Piezoelectric Transducers.		
	O	www.elac.com/en/products/imago/dml.html (visited 11/4/03)		
	Р	www.murata-northamerica.com/murata/murata.nsf/pdf/addproducts/\$file/techbriefprezo042302.pdf(visited 114/03); MuRata's Piezoelectric Sound Components, by Shay Ashmon.		
	Q	www.murata.com/catalog/p15e6.pdf (Visited 11/4/03)		
	R	www.lordcorp.com (visited 11/03); Product Section		
	S	www.nxtplc.com (visited 10/29/03); Siemens Display Speaker Case Study		
	T	www.nxtplc.com (visited 10/29/03); NXT Distributed Mode Loudspeakers		
	U	www.nxtplc.com (visited 10/29/03); NXT's Sound Vu Technology		
	٧	www.nxtplc.com (visited 11/6/03); DMA exciter case study		
	W	www.nxtplc.com (visited 11/6/03); The DMA exciter		
	X	www.dba-pr.com/clients/nxt-plc/releases/siemensphone.htm (visited 10/29/03); Major Milestone in Mobile Comms as Siemens Showcases Mobile Phone Using NXT Technology, by Franklyn Roth.	-	

	***	
Examiner	Date	
Signature	Considered	

<sup>\*</sup>EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>&</sup>lt;sup>1</sup>Applicant's unique citation designation number (optional). <sup>2</sup>Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO:**Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.